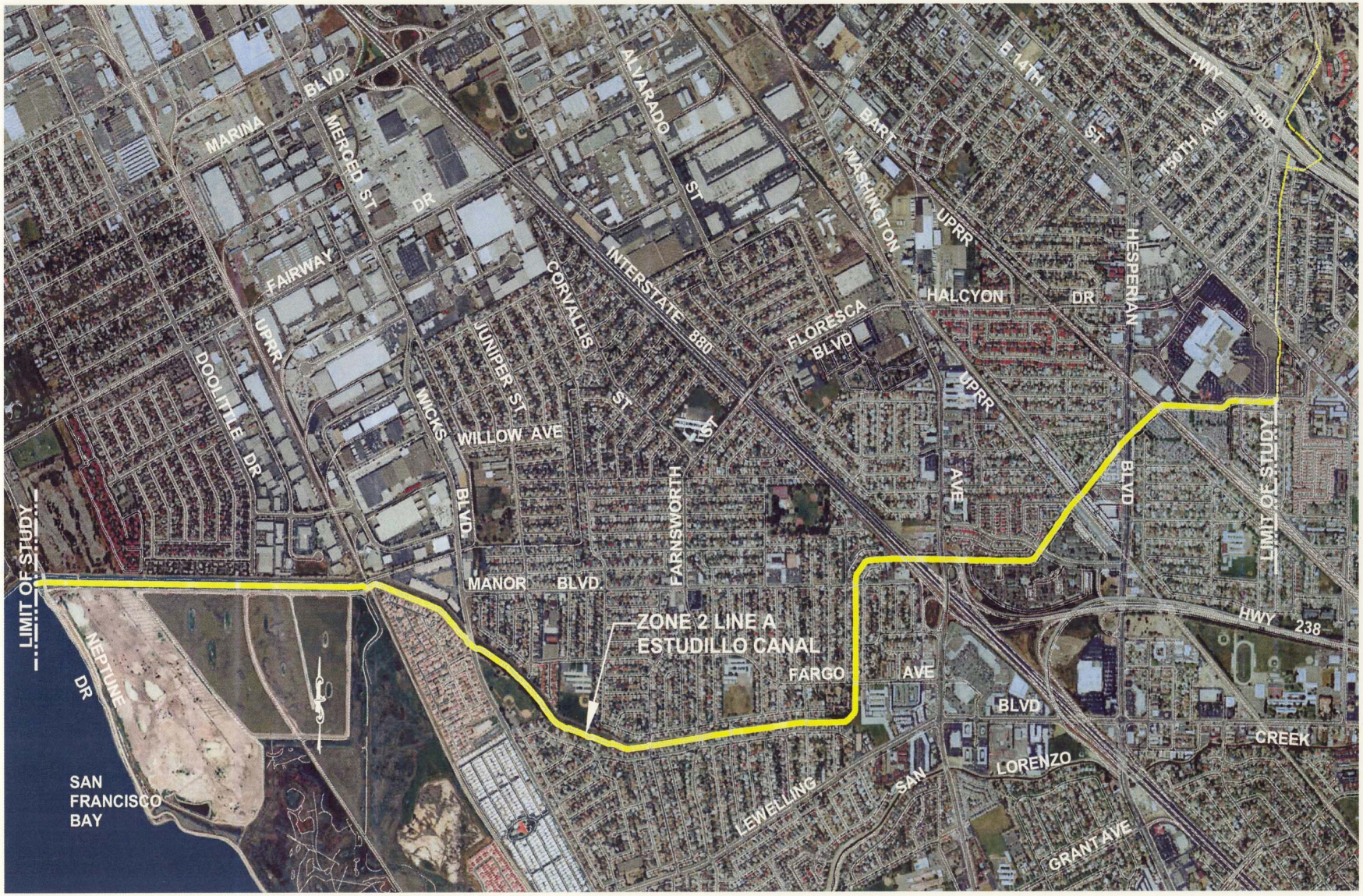


ZONE 2 LINE A - ESTUDILLO CANAL FEASIBILITY STUDY

ZONE 2 LINE A ESTUDILLO CANAL PUBLIC WORKSHOP February 8, 2006

Alameda County Flood Control and Water Conservation District

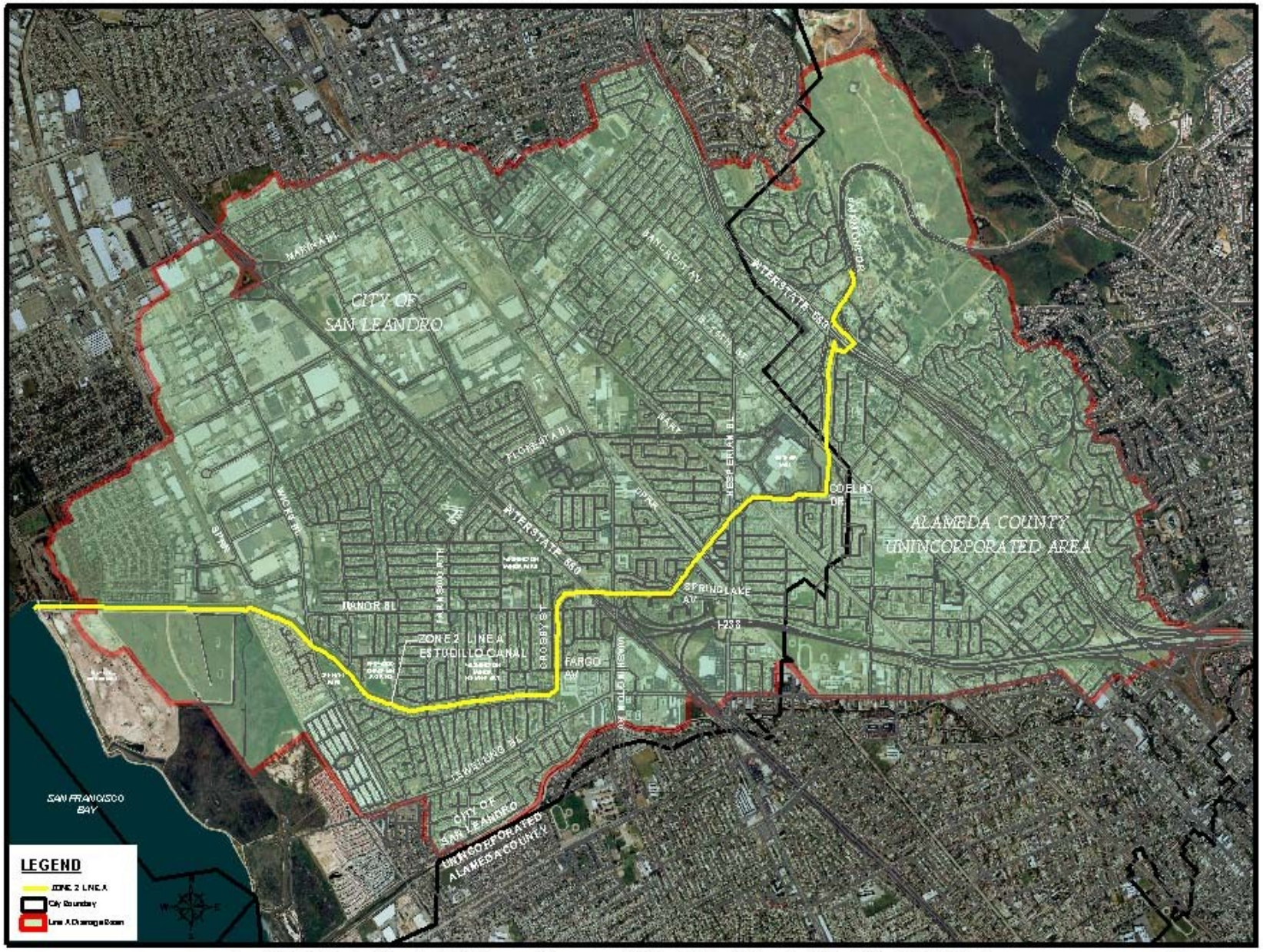
&

United States Army Corps of Engineers

PURPOSE OF PUBLIC WORKSHOP

- Introduce the study team members
- Provide background information about Estudillo Canal
- Kick-off the feasibility study
- Solicit input from the public

DRAINAGE BASIN MAP



ZONE 2 LINE A - ESTUDILLO CANAL

DRAINAGE BASIN MAP

ESTUDILLO CANAL – DRAINAGE BASIN

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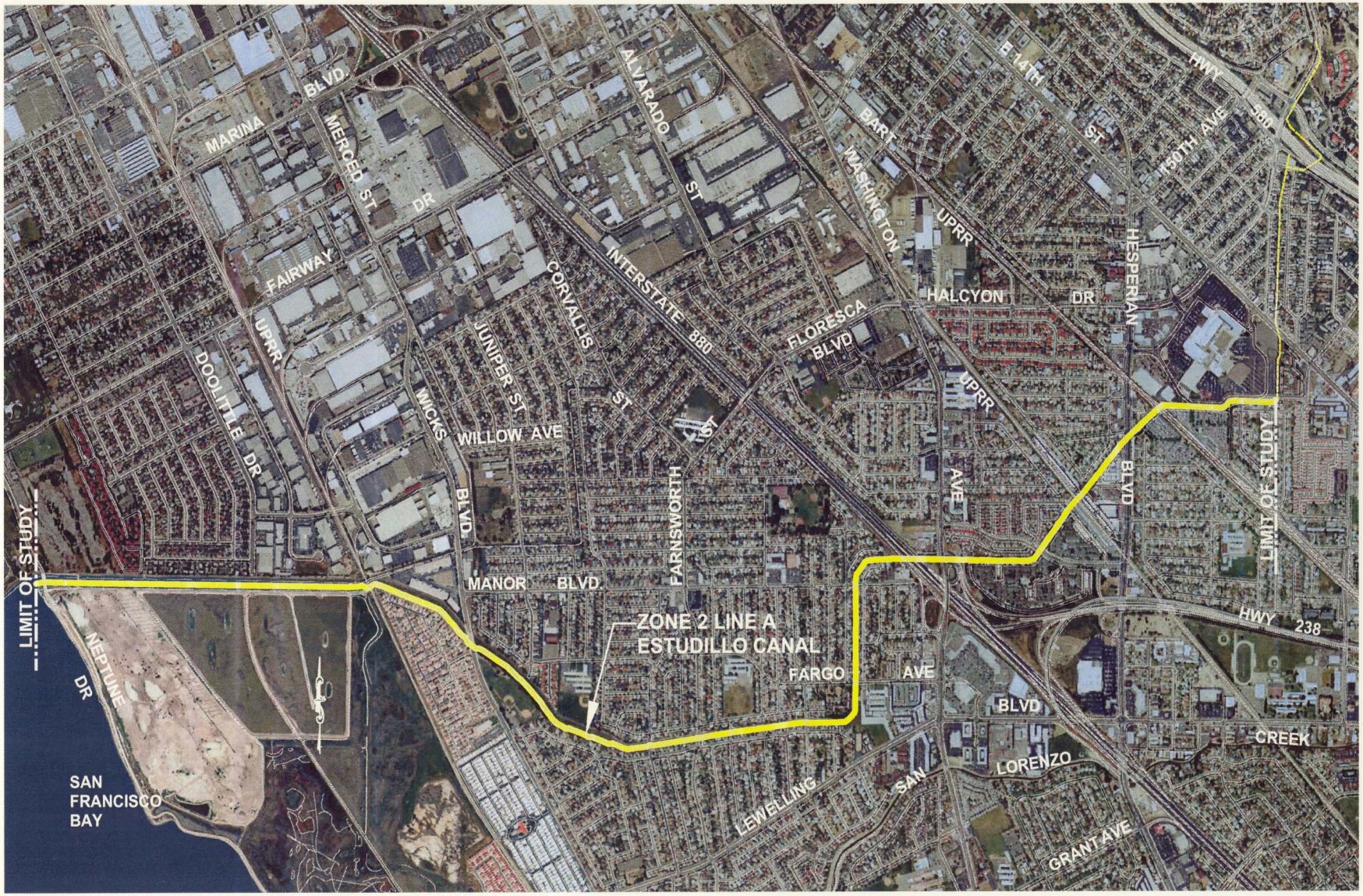
- Collects storm run-off that flows to the flood control facility. That area from which rainfall drains to Estudillo Canal and then flows through the canal to the Bay.
- Drainage basin is approximately 9.5 square miles.
- Drainage basin bounded by San Francisco Bay and Fairmont Drive in the east-west direction and Marina Boulevard and Lewelling Blvd in the north-south direction.
- Development in the drainage basin consist mainly of residential and commercial districts.

ZONE 2 LINE A – ESTUDILLO CANAL PLAN



ZONE 2 LINE A - ESTUDILLO CANAL FEASIBILITY STUDY

ESTUDILLO CANAL BACKGROUND

- Constructed in late 1950s and early 1960s.
- A primary flood control facility that collects storm water run-off from part of the Alameda County unincorporated area and majority of the City of San Leandro area, and discharges to San Francisco Bay.
- Runs from San Francisco Bay to E 14th Street (upper Corps project limit), ending at Fairmont Drive.

ESTUDILLO CANAL BACKGROUND

- Total length is approximately 4.4 miles.
- The facility consists of earth channel, concrete lined channel, street culvert crossings and underground pipes.
- The Flood Control District owns or has easements along the length of the facility, except for the freeway crossings at I-880 and I-580 which are owned by Caltrans.
- Originally designed to contain a 15-year design storm flow, with 1 foot of freeboard.

PURPOSE OF THE PROJECT:

- Significantly reduce the potential for flooding
- Remove approximately 1,800 homes from FEMA flood hazard designation

FARNSWORTH STREET FLOOD PHOTOS OF NOVEMBER 2002

How was FEMA Flood Plain established?

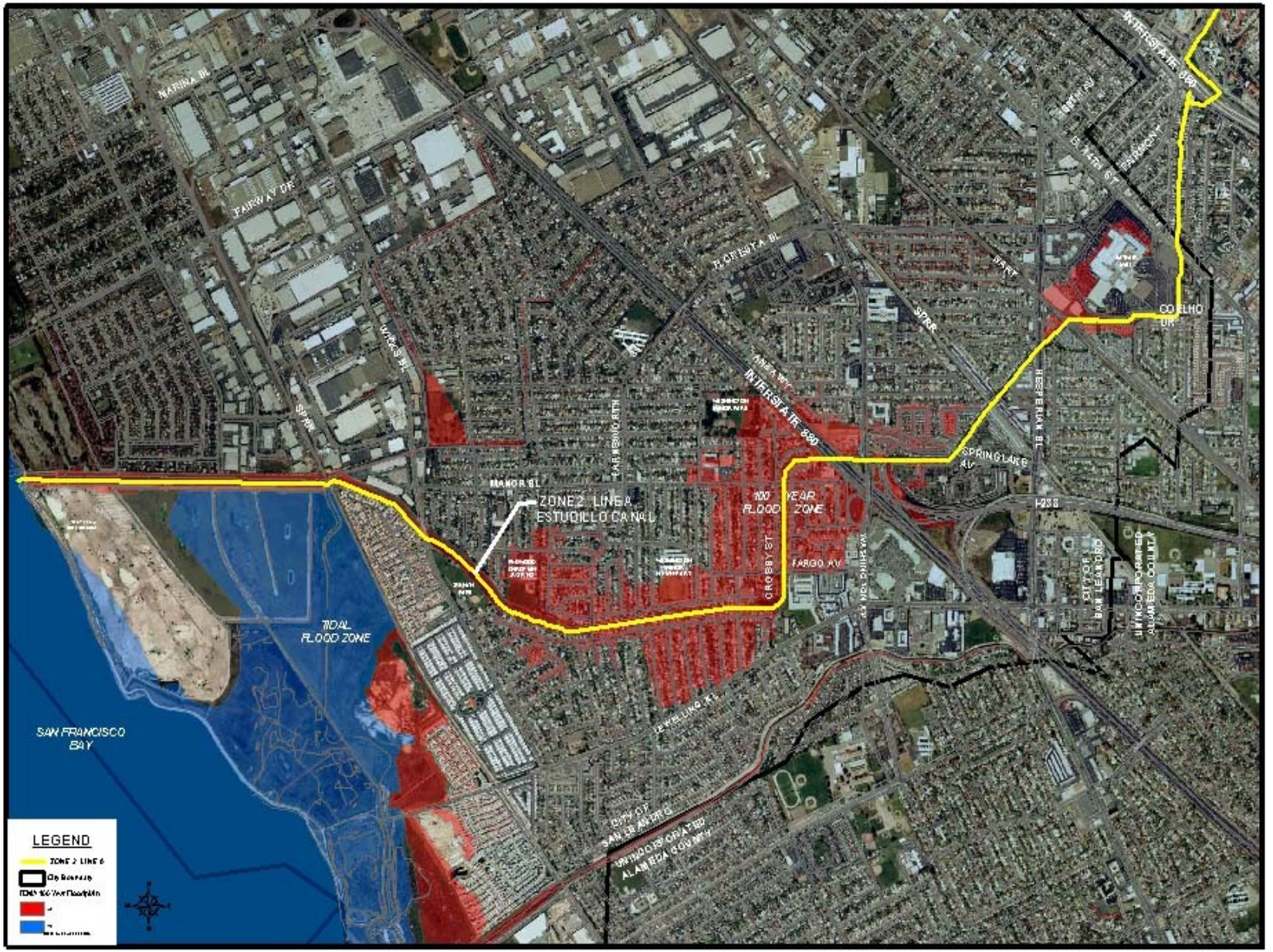
National Flood Insurance Program (NFIP)

- The NFIP was established by Congress in 1968 and is administered by the Federal Emergency Management Agency (FEMA).
- Under the program, a Flood Insurance Rate Map (FIRM), which depicts a 100-year flood plain, is developed by FEMA.
- The program enables property owners, who are in a 100-year flood plain, to purchase flood insurance.
- Property owners, who have federally backed loans, are required to secure flood insurance.

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM)

- FEMA FIRM for Estudillo Canal was initially developed in March 1980.
- FEMA conducted a re-study on Estudillo Canal and issued a new preliminary FIRM in 1997 with a much larger 100-year flood plain area.
- The District appealed this map and provided additional data which resulted in a reduced flood plain area.
- FEMA issued the final FIRM on February 9, 2000.
- Approximately 1,800 properties are now within the 100-year flood plain area.

FEMA FLOOD INSURANCE RATE MAP



ZONE 2 LINE A - ESTUDILLO CANAL

FEMA FIRM - 100 YEAR FLOODPLAIN

Why is the Corps involved?

- Due to the construction cost magnitude, the District requested financial assistance from the Corps.
- To study alternatives that may improve the capacity of Estudillo Canal and contain the FEMA 100-year design storm flow; in 2004 the District's preliminary construction cost estimate for the necessary improvements was $25 million.
- With local community support, the District and City successfully lobbied Congress to fund and conduct the feasibility study. Hopefully the Corps will participate in the design and construction of the needed improvements.

Project Development Process

Phase 1 – Planning Phase

- Step 1 Reconnaissance Study
- Step 2 Feasibility Study

Phase 2 – Pre-construction Engineering & Design

Phase 3 – Construction

Phase 4 – Operation and Maintenance

Results of the Reconnaissance Study

- Congress appropriated $100,000 in 2003 for the Corps to conduct the Reconnaissance Study. The purpose of this study is to determine if there is a Federal interest in participating in a cost shared feasibility study. The Reconnaissance Study was completed in October 2004.
- The Corps determined that there is a Federal interest to pursue the Feasibility Study Phase. The purpose of the Feasibility Study is to determine the extent of Federal interest in providing flood damage reduction improvements. A more extensive evaluation will be performed to fully define the problems and opportunities, describe and evaluate alternative plans, and fully describe a recommended project to alleviate the potential of flooding and remove the area from the FEMA 100-year flood plain.
- A Feasibility Cost Sharing Agreement between the District and the Corps was executed on September 21, 2005.
- The estimated Feasibility Study cost is $3,540,000 and will take 3-4 years to complete.
- The Estimated total Project Cost is approximately $30 million.

Feasibility Study Process

- Evaluate an array of alternatives with varying levels of protection and costs to determine the National Economic Development plan
- An Iterative 6 step planning process
- Recommended plan goes to Congress for consideration for authorization to design and construct

Next Steps in the Feasibility Study Process

- Over the next year
  - Identify flooding problems
  - Identify opportunities for reducing the flood potential
  - Identify project constraints
  - Formulate Planning Objectives
  - Identify measures for flood protection
  - Combine measures for possible alternative formulation
- Identify existing condition flows, floodplains, environmental resources

Ultimate Objectives & Benefits

- Increase the capacity of the Estudillo Canal to contain FEMA 100-year design storm flow.
- Enable the District to submit to FEMA a letter of Map Revision (LOMR) application to remove the 100-year flood plain designation.
- Relieve the property owners from having to further pay for flood insurance, once the flood plain designation is removed. There would be a potential $2,000,000 annual savings in flood insurance premiums for affected residents

We would like to hear from you

- Workshop Station Set-up
  - Project History
    - What have you witnessed?
  - Project Development & Feasibility Study Process
    - What would you like to be considered in the formulation of alternatives?
  - Environmental Review Process
    - What are your concerns?
  - Public Outreach
    - How would you like to stay involved?

Contact/Information

For Feasibility Study information contact:

- Manny Canivel, District representative
  Tel. No. (510) 670-5775
- Nicole Ortega, Corps representative
  Tel. No. (415) 977-8476

Feasibility Study status will be published and updated on the project websites at:

www.spn.usace.army.mil/projects/estudillo

www.acgov.org/pwa/acfcdweb/web/home.html

END OF PRESENTATION